Saskatchewan Agriculture

Economics Branch

Farm Management

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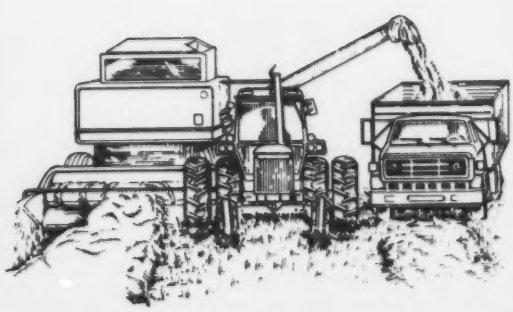

Leasing Farm Machinery

Foreword

Farm machinery leasing is now more common in Saskatchewan. It is one more tool in overall farm financial planning. For some farmers, leasing may be a good alternative. However, the majority of Saskatchewan farmers will co[illegible]e to find machinery ownership to be the best economic choice.

This publication discusses the advantages and disadvantages of leasing machinery. It discusses what to look for in machinery leasing contracts and indicates variations in lease contracts between leasing companies. A budgeting procedure is presented whereby farmers can use their own set of circumstances to determine if leasing or purchasing is more economical. This bulletin was prepared by The Farm Management Section of Saskatchewan Agriculture. The assistance of many resource people and reviewers is gratefully acknowledged.

For further information or additional copies of this bulletin, contact your local Agricultural Representative, Regional Farm Management Specialist or the Farm Management Section, Saskatchewan Agriculture, Room 329, Walter Scott Building, Regina, Saskatchewan, S4S 0B1.

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A) Introduction

Saskatchewan farms continue to grow in size. Accompanying this trend is greater mechanization on farms through the acquisition of modern farm machinery and equipment. Traditionally, farmers have acquired machinery through purchase. With changing technology and spiraling costs, the amount of capital needed to maintain an adequate line of equipment represents a significant percentage of total farm investment. This, coupled with higher interest rates, has greatly increased the cost of machinery ownership. Many farmers are now considering alternatives to purchasing equipment, such as custom hiring, short term rental arrangements and longer term leasing.

More farmers are considering machinery leasing on their farms. The leasing of capital assets is not new to the business world. The concept was initially introduced in the United States in the early 1950's and in Canada in the mid 1960's. Leasing has grown to the point where today 70% of all Canadian businesses look to leasing to provide some of their capital requirements. The percentage is even higher in certain sectors such as the heavy construction industry. Statistics Canada surveys indicate that net leases outstanding increased from $1.39 billion to $2.41 billion during the four year period, 1974 to 1977, a 73% increase.

The purpose of this bulletin is to determine if there are any cost advantages to leasing over purchasing.

B) Types of Equipment Leases

It is necessary to distinguish between the leasing of equipment and the rental of equipment. In addition there are key differences in leases as well.

1) Equipment Rentals

Equipment rentals are short term contracts for less than a one year period and often contain a cancellation clause, subject to notice. Normally, the lessor is responsible for service and repairs to the rental unit. A rental contract does not normally include an option to purchase the rental unit.

Farm equipment dealers may rent particular machinery by the hour, for a day, week, month or an entire season. Farmers who are customers of the particular farm equipment dealer are usually given preference in renting equipment. The ability to rent machinery on a short term basis depends on the availability and the relationship with the lessor.

The rent paid on an equipment rental contract is a direct expense for income tax purposes.

2) Equipment Leases

A lease is a medium term contract, generally for a term of three to ten years. Normally, the contract can not be cancelled during the term unless penalties are paid.

A lease may involve a single piece of equipment or several items (eg. a line of farm machinery). The money involved can range from a few thousand dollars and up. Usually, the lessee negotiates the terms and conditions of a lease with a leasing firm. He then negotiates purchase prices with suppliers of his choice and the lessor issues purchase orders in accordance with those negotiations. The more sophisticated leases includes a committed line of lease credit with many assets being purchased from various suppliers. The term of a lease and schedule of payments can be tailored to fit the individual requirements of the lessee.

A lease may be nothing more than a purchase or it may in fact be a true lease. The Canadian Institute of Chartered Accountants refers to *capital leases* and *operating leases*.

(a) Operating Lease

An operating lease is one in which the lessor does not transfer substantially all the benefits and risks associated with ownership of property to the lessee. For accounting purposes, payments on an operating lease are treated as an operating expense.

(b) Capital Lease

A capital lease is one in which the lessor transfers substantially all the benefits and risks associated with ownership or property to the lessee. In a capital lease the lessee must treat the transaction as a capital purchase.

Revenue Canada, for income tax purposes, does not refer to operating and capital leases as such. However, certain leases must be treated as a purchase whereby the lessee must split the lease payments between interest and principal payments. The interest may be claimed as an expense. In addition, capital cost allowance may be claimed on the purchase price. The asset is also eligible for the investment tax credit.

In contrast, if the lease is not required to be treated as purchase, the lessee may claim the lease payments as a direct expense.

Revenue Canada's Interpretation Bulletin #233 indicates that if any of the following factors exist in a lease contract, the entire transaction is to be considered a purchase (capital lease) at the time the contract is signed:

(i) the lessee automatically obtains ownership of the property by the end of the lease term.

(ii) the lessee is required to purchase the property by the end of the lease or is required to guarantee the lessor that he will receive the full amount specified in an option to purchase in the lease.

(iii) the lessee has the right to purchase the property by the end of the lease at a bargain price. If the price established on an option to purchase is substantially less than what the fair market value of the property will probably be at the date that the option can be exercised, this would be treated as a capital lease.

(iv) the lessee has the right to purchase the property by the end of the lease term at a price or with terms that no reasonable person would turn down.

An option to purchase may be part of a lease or it can be a separate agreement or even a verbal agreement. Irrespective of the nature of an option to purchase, the factors indicated above apply.

Many equipment leases have a written or verbal option to purchase price which may in fact be less than the probable fair market value of the machine at the date that the option will be exercised. For example, a common option to purchase price at the end of a five year term for a tractor is 20% of original cost (i.e. - based on 20% residual value). Therefore, a $12,000 option price may be offered for a $60,000 tractor. Over the past number of years, good quality farm machinery has tended to retain its value because of inflation. If inflation continues, would it be realistic to assume that a $60,000 tractor today, would have a value of only $12,000 in five years time? It is possible that Revenue Canada will consider the $12,000 option price to be substantially less than the tractor's probable fair market value at the end of five years. The agreement could likely be viewed as a capital lease; that is, the property is considered to be purchased at the date the lease is signed.

If a lease is considered to be an operating lease at the outset, but the lessee eventually acquires ownership of the property, special tax rules apply for any lease negotiated after December 11, 1979.

These rules apply in situations where the fair market value of the property on the date that the option is exercised exceeds the actual purchase price in the option to purchase. This difference is deemed to be capital cost allowance previously claimed with the result that recaptured capital cost allowance may eventually occur on the sale of the property.

The following example illustrates how the tax rules apply:

Assumptions:
(i) a tractor with a value of $70,000 at the beginning of the lease, is leased for a five year term with an annual rental of $15,000.

(ii) the lessee purchases the tractor at the end of the lease for $20,000.

(iii) the tractor's fair market value on the date that the option is exercised is $75,000.

(iv) the lessee (now owner) sells the tractor at a later date for $80,000.

The deemed capital cost of the tractor is the lesser of:

(a) the tractor's fair market value at the date that the option is exercised (eg. - $75,000), or

(b) the sum of the option price ($20,000) and the total rent previously paid (5 years x $15,000 = $75,000). This totals $95,000.

Thus, the deemed capital cost of the tractor would be $75,000. The undepreciated capital cost (book value) is deemed to be $20,000 which is the option price. This results in recaptured capital cost allowance of $55,000 when the tractor is sold for $80,000. In addition, there is a $5,000 capital gain.

Summary of the income tax effect:

(a) Effect on capital cost allowance.	
Deemed capital cost	$75,000
Deemed undepreciated capital cost (option price)	20,000
Capital cost allowance deemed to have been claimed	$55,000
(b) Effect on capital gain.	
Proceeds of disposition	$80,000
Less deemed capital cost	75,000
Capital gain	$ 5,000
Taxable capital gain	$ 2,500

For operating leases entered into prior to December 11, 1979, the tax treatment when such an option is exercised is more favorable. The capital cost is the option price and any subsequent sale of the asset for an amount in excess of the option price is a capital gain (not recaptured capital cost allowance).

In the above example, under the old law, the adjusted cost base of the tractor when the option

is exercised would be $20,000. When the tractor was sold for $80,000, a capital gain of $60,000 ($80,000-$20,000) would occur. The taxable capital gain is one-half of the capital gain or $30,000. The Capital Gains Exemption may apply to capital gain realized on machinery sold after January 1, 1985.

In conclusion, for operating leases, it is not possible to avoid the tax implication of purchasing the asset by having a separate agreement covering the option to purchase or by having a verbal agreement (under the table).

If there is a common link (eg. serial number) between the lease contract and either a separate contract or a verbal contract, the entire transaction is viewed as one agreement.

When a leased asset is purchased, a farmer will find himself in much the same tax position as far as capital cost allowance is concerned as if he had purchased the machine initially rather than having leased it and then later on purchased it.

The contents of the following sections in this publication relate to operating leases, not capital leases.

C) Elements of a Lease

A lease contains certain basic elements. These elements are as follows:

1) Lease Term

The term of a lease refers to the period of time over which the contract extends. Some leases include renewable features upon expiry.

The term of a lease depends on the type of asset involved, although some flexibility exists when negotiating the actual agreement. For example, a rapidly depreciating asset such as a combine may be available for a three to five year term. Assets which depreciate more slowly such as feed processing equipment may be offered at a 10 to 15 year term.

2) Residual Value

The residual value of a leased asset is specified at the time the lease is negotiated. It represents an estimate of the lessor's investment in that asset at the expiration of the lease and is normally expressed as a percentage of the original cost. The term of the lease and the rate at which the lessor wishes to recapture his investment will determine the residual value. Thus, the longer the term and/or the higher the lease rate, the lower the residual value. In contrast, the shorter the term and/or the lower the lease rate, then the higher the residual value. The type of asset will also determine the residual value. For example, office furniture leased over a four year period may be accorded a residual value of 5% where as a four-wheel drive tractor leased for a three year term may carry a residual value of 50%. Most companies structure residual values in relation to expected depreciation rates and number of years involved (lease term), and the operating ability of the lease. As a result, many companies will negotiate the level of the residual value.

3) Repayment Periods

Lease payments can be annual, semi-annual or even monthly, depending on the cash flow of the lessee's business. However, payments are always made one pay period in advance.

It may be possible to arrange for skip payments to match cyclical cash flows. This is common practice in the construction industry where operations are of a seasonal nature and revenues are typically generated in the summer and fall months. For example, a road building contractor may wish to schedule his lease payments for the months of June to November, skipping the six month period December to May. Thus, over a five year term, only 30 monthly payments would be required.

With monthly payments, it is often necessary to provide several advance rentals at the beginning of the lease. For example, the lessor may request six month's advance rentals in addition to the first month's rent. These advance rentals ride throughout the term of the lease and are then applied against payments for the last six months. This provides the lessor with a financial cushion in the event of default or recovery action, thus reducing the risk associated with monthly payments.

4) Leasing Rates

The leasing rate determines the size of the actual payment. These rates are normally expressed as a factor of so much per dollar of original cost. For example, given a five year term with 25% residual value, the lease rate may be .20026 annually or .10013 semi-annually. Thus, a $10,000 machine leased with these provisions would involve five annual payments of $2,002.60 or ten semi-annual payments of $1,001.30.

The lease rate will be influenced by the following factors:

(a) **term of the lease** - as the term increases, the lease rate decreases and vice-versa,

(b) **frequency of payments** - the more frequent the number of payments, the lower the rate will appear. However, since payments are in advance, the effective cost becomes higher as the number of pay periods increase. Thus, the overall cost of annual payments is less than monthly payments,

(c) **residual value** - the higher the residual value, the lower the lease rate since the lessor has less investment to recapture through rental payments,

(d) **total dollars involved in the lease contract** - some leasing companies offer a reduced rate when the dollar amount exceeds a certain level. This may be due to lower administration costs per dollar involved.

(e) **prevailing interest rates** - leasing rates will fluctuate with changes in prevailing interest rates.

(f) **value of tax benefits** - the tax savings which may accrue to a leasing company because of the investment tax credit and capital cost allowance is often reflected through lower leasing rates. Some of the manufacturer subsidiaries can utilize these tax benefits to offset the high taxable incomes of their parent companies. By offering lower rates, they become more competitive. Indirectly, some of the tax savings are passed back to the lessee,

(g) **margin for profit or risk** - as in any other business, individual leasing companies will have differing attitudes towards risk and profit expectation. The higher the margin for profit and/or risk, the higher the leasing rate will be.

All of the above variables will affect the leasing rate when comparing contracts within a company as well as comparing rates between competing firms. It is important for the lessee to understand these variables and how they influence the leasing rate when shopping for leasing programs.

5) Termination Values

Leasing companies may establish a schedule of termination values in the lease agreement. The termination value (recovery value) is an amount which the lessee must pay to the lessor if the lease is terminated prematurely. Termination values cover specific time periods during the term of the agreement (often coinciding with regular pay periods). For example, a five year is not applicable, since the lease is fully paid out after the fifth payment.

Termination values provide a specific amount which the lessor must realize should the agreement be voluntarily or involuntarily (through default) terminated. If a shortfall occurs, the lessee must provide the deficiency plus costs of disposal.

6) Option to Purchase

A lease may include an option to purchase during or at the end of the lease term. It may be part of the lease agreement, a separate document or even a verbal undertaking (under the table contract). The option price to be determined when the option is exercised (e.g. fair market value).

An option to purchase is often a specific amount based on the residual value of the asset. An option to purchase may result in the contract being a capital lease, rather than an operating lease. (See Section B, Types of Equipment Leases)

D) Types of Companies Providing Leasing Services

Leasing companies can be classified into three general categories according to the nature of their leasing activities. These include:

(a) **Private Leasing Firms** - who specialize in leasing a wide range of assets,

(b) **Financial Institutions** - in particular the chartered banks whose leasing activities are carried out through a subsidiary company,

(c) **Equipment Manufacturers** - whose leasing activities are a financial arm of the parent company.

1) Private Leasing Firms

Private firms serve all segments of business and industry, leasing such varied assets as office furniture, data processing equipment, railroad rolling stock and earth moving equipment.

Since agricultural leasing is relatively new, there are no firms specializing in farm machinery at present. Furthermore, it does not appear that this group of lessors will become active in agricultural leasing in the near future.

2) Financial Institutions

Many financial institutions offer leasing services as a part of their overall operation. In the past, such services were commonly offered by commercial lenders and acceptance corporations. The chartered banks are now more actively

involved in agricultural leasing. However, the Bank Act does not allow the chartered banks to lease directly, therefore leasing activities are carried out through subsidiary firms. Most chartered banks have subsidiary leasing firms, although not all are presently active in Saskatchewan.

The leasing programs offered by the lending institutions are very similar in structure. Their lease agreements are usually "fully-funded" in nature, which means that the lessor recaptures his full initial investment during the term of the lease. This is accomplished by scheduling an option to purchase prior to the termination of the lease. For example, if the overall term of the lease extends 84 months, the option to purchase may occur at the end of the 60th month. The first 60 months is referred to as the "term to option" while the latter 24 months is known as the stretch term. At the end of 84 months, there is no residual value remaining. The lessee must either exercise his option to purchasing the 60 month, or continue to lease, during the stretch term. Either way, the lessor is guaranteed a full pay-out of his initial investment, therefore, it is "fully-funded". This type of lease is also commonly known as a "stretch-term lease".

Lending institutions will often include renewable features in their lease programs. For example, it may be possible to lease an asset for a second term at a percentage of its market value at the beginning of the second term. Some companies will even credit the assets remaining value against the cost of leasing a replacement unit. In other words, if the lessee wishes to lease a new replacement machine for a new term, the cost of leasing would be based on the added cost of purchasing the new machine rather than the full replacement cost of the new machine. When comparing these types of leases, it is essential to examine the renewable options as well as the purchase option.

3) Equipment Manufacturers

Many farm equipment manufacturers have introduced leasing programs recently. These programs are offered to farmers through the dealer network. The lease's term is usually three to seven years, with a residual value at the end of the lease. In effect, the lease in not "fully-funded"as is the case with leases offered by the lending institutions. However, the dealer must acquire the machine from the leasing division of the manufacturer for an agreed residual value. As a result, there are no renewable features under this type of leasing program. Secondly, any option to purchase would have to be negotiated directly with the dealer under a separate agreement, independent of the lease contract. Not all dealers offer an option to purchase. Some manufacturers discourage their dealers from getting involved in an option to purchase with the lessee.

A dealer's attitude and willingness to participate in leasing can be instrumental in negotiating a fair lease. It may be useful to check with dealers offering the same lines as well as competing lines of equipment.

E) Reasons For Leasing

There are several potential reasons for leasing rather than purchasing farm equipment. The main advantages of leasing are outlined below. However, the cost advantage of leasing versus owning will be treated independently in the section "Economics of Leasing vs. Owning".

1) Fixed Cost Financing

Leasing is a source of term money at a fixed cost. In light of today's volatile interest rates, securing capital at a fixed rate may be beneficial. Although dealer financing can be obtained on fixed terms, this is generally limited to a three to five year period at higher than average interest rates. Under a leasing program, most farm equipment can be obtained for a two to ten year term, depending on the individual's needs. The disadvantage of fixed cost financing is that in times of high prevailing interest rates, it may not be advantageous to lock in the cost of financing.

2) Credit Preservation

A farmer's borrowing limit is based not only on repayment capacity but also on his balance sheet ratios. If a wide debt/equity ratio limits credit from conventional sources, then leasing may be an alternative. However, some leasing firms often require a stronger financial situation than do the lending institutions.

When borrowing restrictions are not an immediate problem, it may be advantageous to leave the room in existing lines of credit for other investment opportunities. By leasing equipment, existing credit can be preserved for additional production inputs, future land purchases or perhaps off-farm investments.

3) Simplified Budgeting and Accounting

Planning and budgeting is simplified by leasing. Because documentation is straight forward, commitments from leasing companies can often be obtained quicker than from lenders. Budgeting cash flows is made easier because lease

payments are a fixed amount. Accounting is also simplified since payments do not have to be apportioned between principal and interest. Operating lease payments can be totally written off as an operating expense. However, if it is a capital lease, the transaction must be treated as a purchase for income tax purposes.

4) Flexibility in Machinery Management

Farmer's buying patterns have changed from longer term ownership to a more rapid turnover of equipment because of rapid changes in technology, expansion and prices. Leasing allows you to fit equipment lines to current needs quite effectively. For example, equipment can be leased to match the term of land leases. Or, if you wish to experiment with some new technology such as an air-seeder or no-till drill, the machine can be leased for a short term. Should it prove unpractical, the machine can be disposed of at the end of this term with no concern about saleability.

5) Flexibility of Leases

There are no standard leasing arrangements. Contrary to financing agreements, lease programs can extend anywhere from two to ten years on certain equipment. Residual values and purchase options may be negotiable. Terms of repayment are not rigid and can be tailored to meet farm cash flow (e.g. - monthly, annual, semi-annual or skip). Through use of these adaptations, a lease can be structured to meet specific needs.

6) Capital Conservation

In theory, leasing is a means of obtaining 100% financing. If a farmer does not have a trade-in when purchasing new equipment, his margin of equity must come out of working capital. Where cash flow is restricted or working capital is tight, it may be advantageous to lease. Since most lease payments are payable in advance, any advantage will hinge on the terms of financing available relative to the lease payment required. For example, if a financing agreement requires a 30% down payment when the available leasing rate is .2000 annual (or 20% of original cost), then a 10% cash flow advantage can be realized in the first year. On a $100,000 equipment purchase this means $10,000 more working capital is available for the first year. On the other hand, if financing can be arranged with a 25% down payment when the leasing rate is .2600 annual (or 26% of original cost), then a 1% cash flow disadvantage will occur in the first year. There is actually a reduction in working capital by leasing.

The greatest degree of capital conservation will occur when lease payments are on a monthly basis. The "up-front" lease payment would then be lower than the equity requirements of purchasing. However, this advantage can be lost if several months of advance rentals are required at the beginning of the lease.

F) Disadvantages of Leasing

There are several disadvantages to leasing which should be recognized as well.

1) Less Gain in Equity

Over the past several years, farm machinery has maintained its value. In many instances, used equipment sells for more than its original cost. Unless purchase options are available and subsequently exercised, the opportunity to accumulate equity in equipment is lost. This represents a strong disadvantage to leasing, especially during inflationary periods.

2) Loss of Tax Credits

Tax credits accrue to the owner of the equipment. Thus, under a leasing arrangement the farmer cannot use them. They are available to the person who buys the equipment and leases it out. These credits include capital cost allowance and the Investment Tax Credit. In Saskatchewan, the investment tax credit is 10% of the price paid for new machinery and equipment to be used primarily for farming. The tax credit may be deducted from the federal income tax payable.

3) Not All Equipment is Suited to Leasing

A lease is a legal document that extends for a period of several years and then terminates. In order to justify leasing on the basis of economics, it is necessary to obtain sufficient use of a given machine within this period (especially if an option to purchase is unavailable). Therefore, machines with annual use are best suited to leasing.

4) Restricted Flexibility in Long Term Leasing

One stated advantage to leasing is flexibility in machinery management. This is true for short term leases. However, there is less flexibility for longer term leases such as those over five years in length. Leases are generally non-cancellable and if terminated early, penalties are levied. When a farm

is undergoing rapid changes in cropping patterns or land base, long term leasing may be impractical. Under these circumstances, it may be less expensive to own and trade equipment than to become tied into long term leases.

5) Protection Under the Agricultural Implements Act

The Agricultural Implements Act provides Saskatchewan farmers with statutory protection regarding the distribution and sale of farm equipment. This includes parts availability, dealer servicing and new unit warranties. In order to gain protection under the Act, the purchaser or "end-user" must use the equipment in primary agricultural production. When private leasing firms purchase equipment through a dealer, they are considered to be the "end-user". However, they do not purchase equipment in order to operate a farming business. Their function is to provide a form of financial service, therefore, they do not come within the scope of the Agricultural Implements Act. As a result, the lessee or farmer is not protected under the act either.

This problem is not apparent in situations where the lessor is an arm of the equipment manufacturer. For the purposes of this Act, the leasing division and dealer are considered to be one and the same. The lessee is considered to be the "end-user" and is thus afforded protection under the Act if he is a bonafide farmer.

G) Points to Consider When Negotiating a Lease

At the current time only new equipment can be leased although it may be possible to lease used equipment in the future. The following points pertain to new equipment only:

1) Warranties

Leases require the lessee to be responsible for all maintenance and repairs. However, warranties apply to leased equipment in the same manner as to purchased equipment. In practice, the lessor receives the warranty but the lessee is entitled to its benefits. Once the warranty has expired, the lessee is responsible for repairs. Should a major repair (e.g. - engine overhaul) occur near the end of the lease term, it is still the lessee's responsibility. Some dealers may offer extended warranties or even full maintenance programs. However, this would be a private agreement between the dealer and the lessee and would not form a part of the lease agreement.

Determine if any restrictions apply to the type of use (e.g. custom work) or hours of use that may affect the lease or the warranty. Make sure there is no liability for conditions of normal wear and tear (e.g. worn tires). Any points negotiated which are not part of the standard lease agreement, should be added in writing.

Statutory warranties under the Agricultural Implements Act do not always apply. Determine if any warranty limitations apply when leasing from private or financial firms.

2) Insurance

Insurance coverage is the responsibility of the lessee. Some companies carry their own lease floater policies which provide insurance against physical damage. This cost is recovered in slightly higher lease rates. However, the lessee may obtain insurance from any source as long as the coverage is for the asset's market value.

The lessor may require the lessee to carry liability insurance. Should the leased machine become involved in a mishap involving a third party injury or property damage, the lessor may be liable as co-defendant. It is in the lessor's interest to insure that the lessee carries adequate liability protection.

3) Tax Credits

Tax credits (investment tax credit and capital cost allowance) can be claimed only by the owner of the equipment, therefore, the lessee cannot use them. Any tax benefits enjoyed by the lessor may be passed back to the lessee through lower lease rates. By comparing rates among the various leasing companies, the farmer can determine if the tax benefits are reflected in the lease rate. Generally, it is only the financially sound equipment manufacturers who can fully utilize the tax benefits available and therefore, fully reflect this in the lease rate.

The lending institutions are normally in a different income tax situation. Leasing subsidiaries may not earn enough income to fully utilize the tax credit available. Furthermore, Canadian tax regulations prevent them from applying these credits or any operating losses against other sources of income (i.e. lending activities). The tax credits cannot be reflected in their leasing rates.

To remain competitive, certain companies attempt to transfer the investment tax credit to the lessee. This is achieved by having the lessee purchase a qualifying asset then enter into a sale-leaseback agreement with the lessor. Such a transaction may not be acceptable to Revenue Canada under existing law, and therefore, the investment tax credit would not be available to the lessee. Where

an asset is resold in the same taxation year, for the purpose of implementing a leaseback, it may be defined as inventory held for resale. It would be ineligible for capital cost allowance and the investment tax credit. To overcome this problem, the lessee should utilize an asset in his business after the purchase, then enter into a sale-leaseback agreement in a subsequent taxation year. It may be wise to consult with Revenue Canada or an accountant or obtain an advance ruling if such transactions are contemplated.

4) Early Termination and Turnovers

The policy of early termination of a lease varies between leasing companies. In some cases, the lessee is required to make all the payments called for in the agreement (discounted only for early receipt). Another possibility is that the lessor and lessee could agree to dispose of the asset. If the lessor did not recover his investment and profit margin, the lessee would be responsible for any shortfall. Some companies include a schedule of termination values within the lease agreement in order to accommodate the possibility of early termination.

A turnover or "flip" occurs where one lease is terminated and replaced by another. Most companies would permit a turnover if the new lease involves more money than the original. An adjustment would be made to the original lease and a new lease would be drawn up. There is no penalty if the second lease is larger than the first.

Before entering into a lease, determine the lessor's early termination and turnover policies. Verbal agreements are normally unenforceable. Put them into writing.

5) Default

Most leasing companies will use normal credit collection procedures for handling a delinquent account. In the case of a well-managed farm experiencing short-term difficulties it would likely be possible to arrange for terms until the problems are solved. However, if severe financial problems are encountered, and the lessee clearly cannot handle the payments, the leased machinery is taken back. At this point, policies differ among companies as to what further action would be taken. In some instances, the lessee would be responsible for past payments due, costs of realization and any shortfall between the lessor's expected return (i.e. anticipated residual) and the actual recovery. Some companies would hold the lessee responsible for future payments as well as past payments due. Whether such action is enforceable could involve a court decision. Farmers should question leasing companies in depth about payment default and recovery procedures. Should any points of contention arise, they could be clarified or amended. The important point is that the lessor's procedure regarding default should be spelled out in writing and agreed to by the lessee. It may be worthwhile to have a lawyer review the contract.

6) Option to Purchase

As discussed under the section dealing with types of equipment leases, certain precautions must be exercised if an option to purchase is to be included with the lease. Under the Income Tax Act, the lease will not be questioned if the option price is the fair market value of the asset at the time the option is exercised. Some firms will not set a fixed option price in order to eliminate any possibility of the lease being ruled as a purchase contract (capital lease).

If an option to purchase is an essential part of your lease arrangement, assess the credibility of the lessor. In the case of manufacturer leases, the option to purchase is generally a separate agreement between the dealer and the lessee. If the dealer goes out of business or sells to a third party, the option to purchase may be worthless. Even a change in shareholders within an existing company may affect the option contract. For example, Acme Tractor Sales (1972) Ltd. may experience a change in shareholders and be reorganized as Acme Tractor Sales (1980) Ltd. Any contracts made by the former company may not be binding on the new company. This is an important consideration since changes in ownership among farm implement dealerships tend to be rather frequent. An option to purchase with a financial institution would be much more secure in this regard. Due to the more permanent nature of these large firms, it is more likely that an option extending several years into the future will be enforceable.

Verbal option to purchase agreements are common. However, the lessee may find it very difficult to enforce the terms of a verbal contract. Always put agreements into writing.

7) Floating Lease Rate

Since lease rates reflect the general level of interest rates, changing interest rates can affect the profitability of a lease to the lessor. Therefore, more leasors are now marketing leases with floating lease rates that are tied to general interest rates in the economy.

8) Negotiable Residual Values

Leasing companies may negotiate the residual value on leased assets. The lower the residual value used, the higher will be the lease rate. Conversely, a high residual value will result in a lower leasing rate. If a higher residual value is negotiated with a resulting lower annual lease rate, the fair market value of the asset at the end of the lease will be closer to the negotiated residual value. There will be less of a need for a farmer to purchase the lease asset at that time, consequently an option to purchase is less necessary in the contract.

9) Trade-In Machines

Farmers may have a used machine to dispose of as a consequence of entering into a lease on a replacement machine. One alternative is to negotiate with the leasing company to have the market value of the used machine applied against lease payments. Another alternative is to transfer the used machine to the leasing company and negotiate a higher residual value on the leased machine, thereby, obtaining a lower annual lease rate on a lower net lease. For example, the lease rate may be .18000 at a 40% residual value. On a $100,000 machine, the annual lease fee would be $18,000. If the farmer had a used machine valued at $40,000 he might transfer ownership to the leasing company if he could negotiate a higher residual value and lower lease rate. When the value of the used machine ($40,000) is subtracted from the value of the leased asset ($100,000), the net value of the lease is $60,000. A residual value of 66.7%
($40,000 / $60,000 x 100%) on the $60,000 net lease will give a residual value of $40,000, which is the same value as a 40% residual value on the full $100,000 value. However, the lease rate may be .1400 on a residual value of 66.7%, therefore, the lease payments are $60,000 x .14 or $8,400 as compared to $18,000 on the full value of the leased asset.

H) Economics of Leasing Versus Owning

This section outlines the economic considerations of leasing versus purchasing. Each farmer's decision will be different because of the numerous factors involved. What may prove profitable to one farmer may not be so for another.

The economics of leasing versus owning can be treated from two points of view. These are:

(a) leasing an asset with the intention of exercising a future option to purchase. On this basis leasing can be considered a financial tool, used as an alternative to borrowing funds;

(b) leasing an asset on an on-going basis with no intention of ever purchasing it. The reason for this would be in order to conserve capital which could then be reinvested into other areas of the farm business (i.e. land, inputs, etc.).

In comparing two or more alternatives, some common procedures must be followed. In this case, the individual must analyze both the purchase and lease alternatives to determine which gives the lowest net after-tax cost. The analysis should compare the Present Value of the after-tax costs of the alternatives considered. In comparing alternatives, it is important to shop around for the most attractive lease arrangement and financing terms available, since numerous variables are associated with leasing and borrowing. Variations in these factors can greatly alter the cost advantage either way. Factors which will influence the final figures are:

- the leasing rate available
- the cost of borrowed capital,
- the down payment required under a financing agreement can be extended,
- the number of years over which a financing agreement can be extended,
- the extent to which capital cost allowance can be utilized,
- the availability of investment tax credit,
- the taxpayer's ability to readily apply these credits,
- the individual's marginal tax position and his opportunity cost on capital.

The following example illustrates a procedure for comparing the costs of purchasing vs. leasing using Present Value analysis. At the end of the five year term assumed in this example, the individual is not in the same ownership position with the two alternatives. However, a fair comparison of leasing and purchasing can be made by determining for the purchase alternative at what value the machine must be sold for at the end of five years to reduce the ownership costs to an amount equal to the cost of leasing. The same figures can be used for the leasing alternative to indicate at what value the machine must be purchased for at the end of the five year period to result in the same total costs as the purchase alternative.

Two purchase alternatives and two leasing alternatives are illustrated in the following tables. These are:

(a) Table 1 - Purchase a $60,000 tractor with financing at 13%

[1] Refer to Appendix A for an Explanation of Present Value Theory.

(b) Table 2 - Purchase a $60,000 tractor with financing at 17%
(c) Table 3 - Lease a $60,000 tractor at an annual lease payment of $12,016 (25% residual value)
(d) Table 4 - Lease a $60,000 tractor at an annual lease payment of $10,529 (45% residual value).

A 12% discount rate has been used to determine the present value of the after-tax cost of each alternative. The discount rates are taken from Appendix B. The results and the breakeven sale price (in the case of a purchase) or the breakeven option to purchase price (in the case of a lease) are summarized in Table 5.

Table 1: Purchase Tractor - Bank Financing
Purchase $60,000 Tractor with 25% Down payment
Balance Payable over Five Years (annual)
Equal Installments of Principal Plus Interest on Balance at 13%
Taxable Income Before Purchase - $45,000
Income Tax Payable Before Purchase - $15,868

Column	1	2	3	4	5	6	7	8	9	10	11
Year	Princ.	Interest	C.C.A.	Taxable Income After Purchase	Tax Payable After Purchase	Tax Saved After Purchase	Invest Tax Credit	Total Tax Recovery (6+7)	Net Cash Out (1+2-8)	Present Value Factors (12%)	P.V. of Net Cash Out
0	$15,000	-	-	n/a	n/a	-	-	n/a	$15,000	1.000	15,000
1	9,000	$ 5,850	$ 8,100	$36,900	$12,048	$ 3,820	$6,000	$ 9,820	5,030	.8929	4,491
2	9,000	4,680	13,770	25,380	7,324	8,544	-	8,544	5,136	.7972	4,094
3	9,000	3,510	9,639	30,681	9,356	6,512	-	6,512	5,998	.7118	4,270
4	9,000	2,340	6,747	34,743	10,997	4,871	-	4,871	6,469	.6355	4,111
5	9,000	1,170	4,723	37,937	12,538	3,330	-	3,330	6,840	.5674	3,881
6	-	-	-	43,830	15,316	552	-	552	(552)	.5066	(280)
TOTAL	$60,000	$17,550	$42,979	n/a	n/a	-	-	$33,629	$43,921	-	35,567

Footnotes to Table 1

Column 1 - Principal
- represents the outflow of principal payments over time. The 25% down payment ($15,000) is made immediately, therefore is shown in Year 0. The balance of the principal payments are made in equal amounts on the anniversary date of the loan.

Column 2 - Interest
- represents the interest payable on the outstanding balance at 13% per annum. Interest is paid annually on the anniversary date of the loan.

Column 3 - Capital Cost Allowance
- represent a the maximum capital cost allowance which can be claimed (15% year 1; 30 % subsequent years). However, the capital cost of the tractor is $54,000 since 10% of the original cost ($60,000) is permitted as the investment tax credit.

Column 4 - Taxable Income After Purchase
- this is the taxable income after the additional expenses of interest and capital cost allowance are deducted from the taxable income of $45,000 that prevailed before the purchase. In determining the date that the tax recovery is realized, consideration must be given to the time lag involved. For example if a tractor was purchased in May, 1983, an income tax reduction for capital cost allowance would occur about one year later in April, 1984, when the 1983 income tax return is filed (a one year lag). If money was borrowed, the first payment of interest would not be paid until May, 1984. The tax reduction for interest would occur about one year later in April, 1985, when the 1984 income tax return is filed (about a two year lag after the date of purchase). The taxable income after purchase (Column 4) calculations considers the one year lag for capital cost allowance and the two year lag for interest. The $36,900 taxable income after purchase in Year 1 $45,000 minus $8,100 capital cost allowance (no interest claimed in Year 1). The $25,380 taxable income after purchase in Year 2 is $45,000 minus $13,770 capital cost allowance from Year 2 and minus $5,850 interest from Year 1.

Column 5 - Tax Payable After Purchase
- This is the total federal and provincial tax payable (based on 1984 tax rates) on the taxable income after purchase.

Column 6 - Tax Saved After Purchase
- This is the amount of income tax saved each year as a result of purchasing the tractor. The figures for each year are arrived at by subtracting the figures in Column 5 from $15,868 (income tax payable before purchasing the tractor).

Column 7 - Investment Tax Credit
- The investment tax credit of $6,000 is 10% of the tractor's purchase price of $60,000.

Column 8 - Total Tax Recovery
- This is the total of Columns 6 and 7.

Column 9 - Net Cash Outflow
- This represents the outflow of money (principal and interest) less the total tax recovery. It is arrived at by adding Columns 1 and 2 and subtracting Column 8.

Column 10 - Present Value Factors at 12%
- Represents the present value factor for each period, using a 12% discount rate. (See Appendix B).

Column 11 - Present Value of Net Cash Outflow
- Represents the present value of the net cash outflow for each period. These figures are obtained by multiplying the net cash outflow for each period by the respective present value factor. The total ($35,567) is the effective cost of purchasing.

Table 2: Purchase Tractor - Dealer Financing
Purchase $60,000 Tractor with 30% Down payment
Balance Payable Over Five Year (Annual)
Amortized Payments are $13,129 Each Year (17% Interest)
Taxable Income Before Purchase - $35,000
Income Tax Payable before Purchase - $15,868

Column	1	2	3	4	5	6	7	8	9	10	11
Year	Princ.	Interest	C.C.A.	Taxable Income After Purchase	Tax Payable After Purchase	Tax Saved After Purchase	Total Invest Tax Credit	Net Tax Recovery (6+7)	Present Cash Out (1+2-8)	P.V. of Value Factors (12%)	Net Cash Out
0	$18,000	-	-	n/a	n/a	-	-	n/a	$18,000	1.000	18,000
1	5,988	$ 7,140	$ 8,100	$36,900	$12,048	$ 3,818	$6,000	$ 9,818	3,310	.8929	2,955
2	7,006	6,122	13,770	24,090	6,838	9,030	-	9,030	4,098	.7972	3,267
3	8,197	4,931	9,639	29,239	8,781	7,087	-	7,087	6,041	.7118	4,300
4	9,590	3,538	6,747	33,322	10,419	5,449	-	5,449	7,679	.6355	4,880
5	11,219	1,909	4,723	36,739	11,967	3,906	-	3,906	9,222	.5674	5,233
6	-	-	-	43,091	14,968	900	-	900	(900)	.5066	(456)
TOTAL	$60,000	$23,640	$42,979	n/a	n/a	-	-	$36,192	$47,448	-	38,179

Footnotes to Table 2:

Column 1 - Principal
- Represents the outflow of principal overtime. The 30% down payment ($18,000) is made immediately, therefore, is shown in Year 0. The balance of the principal payments are made in equal amounts on the anniversary date of the loan.

Column 2 - Interest
- Represents the interest payable on the outstanding balance at 17% per annum. Interest is paid annually on the anniversary date of the loan.

Column 3 - Capital Cost Allowance
- Represents the maximum capital cost allowance which can be claimed (15% year 1; 30% subsequent years). However, the capital cost of the tractor is $54,000 since 10% of the original cost ($60,000) is permitted as the investment tax credit.

Column 4 - Taxable Income After Purchase
- This is the taxable income after the additional expenses of interest and capital cost allowance are deducted from the taxable income of $5,000 that prevailed before the purchase. In determining the date that the tax recovery is realized, consideration must be given to the time lag involved. (See the footnotes for Column 4, Table 1 for a discussion of time lags.)

Column 5 - Tax Payable After Purchase
- This is the total federal and provincial income tax payable (based on 1984 tax rates) on the taxable income after purchase.

Column 6 - Tax Saved After Purchase
- This is the amount of income tax saved each year as a result of purchasing the tractor. The figures for each year are arrived at by subtracting the figures in Column 5 from $15,868 (income tax payable before purchasing the tractor).

Column 7 - Investment Tax Credit
- The investment tax credit of $6,000 is 10% of the tractor's purchase price of $60,000.

Column 8 - Total Tax Recovery
- This is the total of Columns 6 and 7.

Column 9 - Net Cash Outflow
- This represents the outflow of money (principal and interest) less the total tax recovery. It is arrived at by adding Columns 1 and 2 and subtracting Column 8.

Column 10 - Present Value Factors at 12%
- Represents the present value factor for each period, using a 12% discount rate. (See Appendix B).

Column 11 - Present Value of Net Cash Outflow
- Represents the present value of the net cash outflow for each period. These figures are obtained by multiplying the net cash outflow for each period by the respective present factor. The total ($38,179) is the effective cost of purchasing.

Table 3: Lease Tractor - Residual Value 25%
Five Year Lease of $60,000 Tractor
Lease Rate .20026 (25% of Residual Value)
Annual Lease Payment - $12,016.
Payments Due Annually One Year in Advance
Taxable Income Before Lease Payment - $45,000
Income Tax Payable Before Lease - $15,868

Column	1	2	3	4	5	6	7
Year	Lease Payment	Taxable Income After Tractor Leased	Tax Payable After Tractor Leased	Tax Recovery	Net Cash Outflow (1-4)	Present Value Factors (12%)	P.V. of Net Cash Outflow
0	$12,016	n/a	n/a	n/a	$12,016	$1.000	$12,016
1	12,016	$32,984	$10,283	$ 5,585	6,431	.8929	5,742
2	12,016	32,984	10,283	5,585	6,431	.7972	5,127
3	12,016	32,984	10,283	5,585	6,431	.7118	4,578
4	12,016	32,984	10,283	5,585	6,431	.6355	4,087
5		32,984	10,282	5,585	(5,585)	.5674	(3,169)
TOTAL	$60,080	n/a	n/a	n/a	$32,155		$28,381

Footnotes To Table 3:

Column 1 - Annual Lease Payments
- annual lease payments are $12,016 per year ($60,000 x .20026). The first payment is made in advance, therefore, is shown in Year 1.

Column 2 - Taxable Income After Tractor Leased
- this is the taxable income after the lease payment has been deducted as an expense from the taxable income of $45,000 that prevailed before the lease was entered into. The tax recovery for the lease payment will normally occur about one year after the rent is paid.

Column 3 - Tax Payable After Tractor Lease
- this is the total federal and provincial tax payable (based on 1984 tax rates) on the taxable income after the tractor is leased.

Column 4 - Tax Recovery
- this is the amount of income tax saved as a result of paying the rent. The figures for each year are arrived at by subtracting the figure in Column 3 from $15,868 (income tax payable before leasing tractor).

Column 5 - Net Cash Outflow
- this represents the net outflow of money. It is determined by subtracting Column 4 (tax recovery) from Column 1 (lease payment).

Column 6 - Present Value Factors at 12%
- represents the present value factor for each period using a 12% discount rate. (See Appendix B).

Column 7 - Present Value of Net Cash Outflow
- represents the present value of the net cash outflow for each period. These figures are obtained by multiplying the net cash outflow for each period by the respective present value factor. The total ($28,381) is the effective cost of leasing the tractor.

Table 4: Lease Tractor - Residual Value 45%
Five Year Lease of $60,000 Tractor
Lease Rate - .17548 (45% Residual Value)
Annual Lease Payment - $9,852
Payments Due Annually One Year in Advance
Taxable Income Before Lease Payment - $45,000
Income Tax Payable Before Lease - $15,868

Column	1	2	3	4	5	6	7
Year	Lease Payment	Taxable Income After Tractor Leased	Tax Payable After Tractor Leased	Tax Recovery	Net Cash Outflow (1-4)	Present Value Factors (12%)	P.V. of Net Cash Outflow
0	$10,529	n/a	n/a	n/a	$10,529	1.000	$10,529
1	10,529	$34,471	$10,882	$ 4,986	5,543	.8929	4,949
2	10,529	34,471	10,882	4,986	5,543	.7972	4,419
3	10,529	34,471	10,882	4,986	5,543	.7118	3,946
4	10,529	34,471	10,882	4,986	5,543	.6355	3,523
5	NIL	34,471	10,882	4,986	(4,986)	.5674	(2,829)
TOTAL	$52,645	n/a	n/a	n/a	$27,715		$24,537

Footnotes to Table 4:

Column 1 - Annual Lease Payments
- annual lease payments are $10,529 per year ($60,000 x .17548). The first payment is made in advance, therefore, is shown in Year 0.

Column 2 - Taxable Income After Tractor Leased
- this is the taxable income after the lease payment has been deducted as an expense from the taxable income of $45,000 that prevailed before the lease was entered into. The tax recovery for the lease payment will normally occur about one year after the rent is paid.

Column 3 - Tax Payable After Tractor Leased
- this is the total federal and provincial tax payable (based on 1984 tax rates) on the taxable income after the tractor is leased.

Column 4 - Tax Recovery
- this is the amount of income tax saved as a result of paying the rent. The figures for each year are arrived at by subtracting the figures in Column 3 from $15,868 (income tax payable before leasing the tractor).

Column 5 - Net Cash Outflow
- this represents the net outflow of money. It is determined by subtracting Column 4 (tax recovery) from Column 1 (lease payment).

Column 6 - Present Value Factors at 12%
- represents the present value factor for each period using a 12% discount rate. (see Appendix B).

Column 7 - Present Value of Net Cash Outflow
- represents the present value of the net cash outflow for each period. These figures are obtained by multiplying the net cash outflow for each period by the respective present value factor. The total ($24,537) is the effective cost of leasing the tractor

Summary of Tables 1, 2, 3 and 4

In order to compare the purchase of a machine with the leasing of a machine, it is necessary to end up in the same ownership position; that is, either:

(a) sell the machine which was initially purchased and compare the costs of ownership less the proceeds from its sale to the leasing costs; or,

(b) purchase the leased machine at the end of the lease and compare the leasing costs plus the cost of purchase at the end of the lease to the costs of purchasing the machine at the outset.

Rather than actually sell the machine or purchase the lease asset, the equivalent cost of purchasing and leasing can be calculated by determining at what value the machine must have at the end of the term (that is, its fair market value) either to sell if it was initially purchased or to purchase if it was initially leased (option to purchase price). These values are presented in Table 5.

Table 5: Value of Tractor at the end of five years to result in the same cost to own and lease:

Purchase Alternative	Lease Alternative	Present Value of Purchase Alternative	Present Value of Lease Alternative	Difference In Present Value Column1-Column2	Value of Tractor in Five Years based on Present Value factor of 0.5674
Purchase Tractor	Lease Pymt. $12,016	$35,567	$28,381	$ 7,186	$12,665
Bank Financing	Lease Pymt. $10,529	$35,567	$24,537	$11,030	$19,440
Purchase Tractor	Lease Pymt. $12,016	$38,179	$28,381	$ 9,798	$17,268
Dealer Financing	Lease Pymt. $10,528	$38,179	$24,537	$13,642	$24,043

Footnotes to Table 5:

* The figures in Columns 4 are arrived at by dividing the figures in Column 3 by the present value factor of 0.5674 which is the factor for a 12% discount rate at the end of five years. For example, 7186 ÷ 0.5674 = $12,665. This means that if a tractor was worth $12,665 five years in the future, its present value is $7,186.

From Table 5, for example, the present value of the costs of purchasing a $60,000 tractor with a five year 13% loan is $35,567. The present value of the costs of leasing the same tractor for five years at an annual leasing rate of $12,016 is $28,381. If the tractor could be sold at the end of five years for $12,665, it would result in the same cost as leasing. The reason is that the present value of $12,665 is $7,186 which reduces the present value of the costs of purchasing from $35,567 to $28,381. This is the same cost as leasing. In other words, the initial purchase will be more favorable then leasing, if the value of the tractor at the end of five years is *equal to or greater* than $12,665 (21% of the original cost of $60,000).

From the leasing perspective, if the tractor could be purchased for a amount *equal to or less than* $12,665 after five years, than leasing would be most favorable.

The figures in Column 4 of Table 5 can also be used to determine if the price in an option to buy is reasonable. For example, when the purchase of the $60,000 tractor with dealer financing is compared to the leasing of the same tractor with an annual lease payment of $10,529, the lease will result in a lower total cost if there is an option to purchase price *equal to or less than* $24,043.

From Table 5, it is evident that factors such as lower costs of borrowing (interest rate), lower residual values for the calculation of lease payments and higher option to purchase amounts in a lease favor purchasing. Factors which would tend to favor leasing includes high costs of borrowing, higher residual values for the calculation of lease payments and lower option to purchase amounts in a lease.

Other factors to consider in making a decision to lease or purchase include:

(i) If there is an option to purchase, will it result in the transaction being a capital lease rather than an operating lease. In addition, how much assurance is there that the option to purchase can be enforced;

(ii) Since the lease cannot be cancelled for five years, there is less flexibility in changing the machinery complement if the structure of the farm changes; and

(iii) How much capital cost allowance is available after five years for each alternative.

I) Summary and Conclusions

With many variations in leasing programs and each farmer's own unique situation, it is important to analyse both the purchase and lease alternatives to determine which gives the lowest net after-tax cost. The analysis should be done on the basis of comparing the present value of the after-tax costs of each alternative.

Generally, farmers in high tax brackets will not realize cost savings by leasing. Such individuals can realize significant tax benefits by owning, especially by purchasing fast write-off assets (class 10) and with the investment tax credit.

Farmers who do not pay income tax or are in low tax brackets may benefit from leasing to the extent that the tax benefits realized by the lessor through capital cost allowance and the investment tax credit are passed back to the farmer by way of reduced rentals. Beginning farmers or those undergoing rapid expansion in their farming operation may be in this category. However, it appears that many leasing companies in Canada do not have sufficient taxable income to fully utilize the tax credits themselves. Therefore, these benefits may not be passed back to the lessee in the form of reduced rentals. Furthermore, it would appear that the interest rates built into leases are approximately the same as the borrowing costs that would be incurred through conventional financing.

Beginning farmers with no taxable income should consider the fact that capital cost allowance need not be claimed in any particular year. It can be carried forward and used at any time in the future. Rental expenses represent a current deduction, which if not utilized in a given year, can only be carried forward up to five years as a farm loss. Should the individual be unable to generate taxable income before the fifth year, the loss which has been carried forward will then be lost for good.

Beginning farmers often purchase used machinery rather than new machinery to keep costs lower. Leasing of used machinery is uncommon. Leasing new machinery is likely to result in much higher costs to a beginning farmer than purchasing used machinery.

J) Information and Services Available to Farmers

1) Saskatchewan Department of Agriculture:

- Provides free bulletins and counselling to the public on farm business management. Bulletins are available from Ag. Rep. Offices and other Saskatchewan Agriculture offices.

- Offers courses in local farm communities.

Farm Management Section
Room 329, Walter Scott Building
Regina, Saskatchewan S4S 0B1
Phone: 565-5942

Regional Farm Management Specialists:

(a) 105 Provincial Office Building
North Battleford, Saskatchewan
S9A 3G7
Phone 445-6146

(b) Box 640
Rosetown, Saskatchewan
S0L 2V0
Phone 882-4229

(c) 350 Cheadle Street West
Swift Current, Saskatchewan
S9H 4G3
Phone: 773-2866

(d) 110 Souris Avenue
Weyburn, Saskatchewan
S4H 2Z9
Phone: 842-4607

(e) Provincial Building
Yorkton, Saskatchewan
S3N 2Y4
Phone: 783-9743

(f) Box 1480, 99th Street
Tisdale, Saskatchewan
S0E 1T0
Phone: 873-2693

2) Revenue Canada:

- Provides free booklets and information circulars on many topics.

District Taxation Offices:

(a) Income Tax Building
1955 Smith Street
Regina, Saskatchewan
S4P 2N9
Phone: 359-6015

(b) Canadian Imperial Bank of Commerce Building
201 - 21st Street East
Saskatoon, Saskatchewan
S7K 0A8
Phone: 665-4595

** General Information - Toll Free Number
1-800-552-8031

3) Other Information Available to Individual Farmers

(a) Local Chartered Accountants and General Accountants
(b) Lawyers
(c) Farm Machinery Dealers
(d) Leasing Firms

Appendix A

Present Value Analysis

Present value analysis is used to compare the value of money at different points in time. It provides a meaningful comparison of alternatives that have different flows of money at different times. The basic concept is that time affects the value of money. A dollar in hand now is more valuable than the prospect of receiving a dollar at some future date. Three reasons account for this:

1. The longer you must wait for money the more uncertain the chances of receiving it become,

2. Money you have now can earn interest which makes it more valuable than money you will receive in the future,

3. Inflation lessens the purchasing power of money.

Present value tables provide factors that can be used to compare inflows and outflows of money for different time periods and discount rates. Appendix B presents such a present value table.

The following two examples illustrate the use of present value tables:

Example 1

The discount rate (interest rate) is 10%, with $1.00 due one year from now.

From Appendix B, the discount factor for 10% and one year is .9091. This means that a person would be as equally well off to accept $0.9091 now as $1.00 one year later. The reason for this is that $0.9091 invested now at 19% would accumulate to exactly $1.00 in one year. Example (0.9091 + (0.9091 x 10%)) = (0.9091 + 0.0909) = $1.00. This illustrates that at a 10% discount rate $1.00 to be received one year later is really worth only $0.9091 today.

Example 2

The discount rate is 14%,
$125.00 is due in four years,

From Appendix B, the discount factor for 14% and four years is 0.5921. This means that a person would be as equally well off to accept $74.0125 (0.5921 x $125.00) now as $125.00 four years later. The reason for this is that $74.0125 invested now at 14% will accumulate to exactly $125.00 in four years when interest is compounded on an annual basis at 14%.

Appendix B

Present Value of $1.00 Due in the Future

Year	Interest Rate													
	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%
1	.9524	.9434	.9346	.9259	.9174	.9091	.9009	.8929	.8850	.8772	.8696	.8621	.8547	.8475
2	.9070	.8900	.8734	.8573	.8417	.8264	.8116	.7972	.7831	.7695	.7561	.7432	.7305	.7182
3	.8638	.8396	.8163	.7938	.7722	.7513	.7312	.7118	.6931	.6750	.6575	.6407	.6244	.6086
4	.8227	.7921	.7629	.7350	.7084	.6830	.6587	.6355	.6133	.5921	.5718	.5523	.5337	.5158
5	.7835	.7473	.7130	.6806	.6499	.6209	.5934	.5674	.5428	.5194	.4972	.4761	.4561	.4371
6	.7462	.7050	.6663	.6302	.5963	.5645	.5346	.5066	.4803	.4556	.4323	.4104	.3898	.3704
7	.7107	.6651	.6227	.5835	.5470	.5132	.4817	.4523	.4251	.3996	.3759	.3538	.3332	.3139
8	.6768	.6274	.5820	.5402	.5019	.4665	.4339	.4039	.3762	.3506	.3269	.3050	.2848	.2660
9	.6446	.5919	.5439	.5002	.4604	.4241	.3909	.3606	.3329	.3075	.2843	.2630	.2434	.2255
10	.6139	.5584	.5083	.4632	.4224	.3855	.3522	.3220	.2946	.2697	.2472	.2267	.2080	.1911
11	.5847	.5268	.4751	.4289	.3875	.3505	.3173	.2875	.2607	.2366	.2149	.1954	.1778	.1619
12	.5568	.4970	.4440	.3971	.3555	.3186	.2858	.2567	.2307	.2076	.1869	.1685	.1520	.1372
13	.5303	.4688	.4150	.3677	.3262	.2897	.2575	.2292	.2042	.1821	.1625	.1452	.1299	.1163
14	.5051	.4423	.3878	.3405	.2992	.2633	.2320	.2046	.1807	.1597	.1413	.1252	.1110	.0985
15	.4810	.4173	.3624	.3152	.2745	.2394	.2090	.1827	.1599	.1401	.1229	.1079	.0949	.0835
16	.4581	.3936	.3387	.2919	.2519	.2176	.1883	.1631	.1415	.1229	.1069	.0930	.0811	.0708
17	.4363	.3714	.3166	.2703	.2311	.1978	.1696	.1456	.1252	.1077	.0929	.0802	.0693	.0600
18	.4155	.3503	.2959	.2502	.2120	.1798	.1528	.1300	.1108	.0946	.0808	.0961	.0592	.0508
19	.3957	.3305	.2765	.2317	.1945	.1635	.1377	.1161	.0981	.0829	.0703	.0596	.0506	.0431
20	.3769	.3118	.2584	.2145	.1784	.1486	.1240	.1037	.0868	.0728	.0611	.0514	.0433	.0365
21	.3589	.2942	.2415	.1987	.1637	.1351	.1117	.0926	.0768	.0638	.0531	.0443	.0370	.0309
22	.3418	.2775	.2257	.1839	.1502	.1228	.1007	.0826	.0680	.0560	.0462	.0382	.0316	.0262
23	.3256	.2618	.2109	.1703	.1378	.1117	.0907	.0738	.0601	.0491	.0402	.0329	.0270	.0222
24	.3101	.2470	.1971	.1577	.1264	.1015	.0817	.0659	.0532	.0431	.0349	.0284	.0231	.0188
25	.2953	.2330	.1842	.1460	.1160	.0923	.0736	.0588	.0471	.0378	.0304	.0245	.0197	.0160
26	.2812	.2198	.1722	.1352	.1064	.0839	.0663	.0525	.0417	.0331	.0264	.0211	.0169	.0135
27	.2678	.2074	.1609	.1252	.0976	.0763	.0597	.0469	.0369	.0291	.0230	.0182	.0144	.0115
28	.2551	.1956	.1504	.1159	.0895	.0693	.0538	.0419	.0326	.0255	.0200	.0157	.0123	.0097
29	.2429	.1846	.1406	.1073	.0822	.0630	.0485	.0374	.0289	.0224	.0174	.0135	.0105	.0082
30	.2314	.1741	.1314	.0994	.0754	.0573	.0437	.0334	.0256	.0196	.0151	.0116	.0090	.0070
40	.1420	.0972	.0668	.0460	.0318	.0221	.0154	.0107	.0075	.0053	.0037	.0026	.0019	.0013
50	.0872	.0543	.0339	.0213	.0134	.0085	.0054	.0035	.0022	.0014	.0009	.0006	.0004	.0003

Glossary of Terms

1. ***Adjusted Cost Base*** - *The beginning* value of an asset from which a capital gain or capital loss is calculated. It is generally the purchase price of an asset acquired since 1971, or the 1971 value for assets acquired in 1971 or before.

2. **Capital Cost Allowance** - The annual deduction allowed under the Income Tax Act to charge the costs of depreciable assets over a number of years.

3. **Capital Gains and Losses**- The change in value of an asset from the time it is acquired to the time it is disposed of.

4. **Capital Lease** - A lease in which the lessor does transfer substantially all the benefits and risks associated with ownership of property to the lessee. In a capital lease, the lessee must treat the transaction as a capital purchase.

5. **Depreciable Assets** - Assets such as buildings or machinery which depreciate in value. These can be entered into capital cost allowance schedules.

6. **Equipment Lease** - A contract where one party, called the lessor, conveys the use of equipment to another person, called the lessee for a specific period of time called the term. The consideration paid is known as a lease payment or rent.

7. **Equipment Rental** - It is a short term contract for less than one year. The lessee is normally charged an hourly rate. The lessor is responsible for service and repairs to the rental unit.

8. **Fair Market Value** - The value of an asset at a given date if sold by a willing and informed seller to a willing and informed buyer who are unrelated.

9. **Fully-funded Lease** - A financial lease in which the lessor recaptures his full initial investment during the term of the lease through either lease payments or a combination of lease payments and a purchase option.

10. **Investment Tax Credit** - A deduction from Federal income tax payable for purchasing new buildings and machinery.

11. **Lease** - A lease in which the lessee has possession of an asset and all the responsibilities of ownership with respect to repair, maintenance and insurance costs. A financial lease is usually non-cancellable and may contain an option to purchase and/or an option to renew.

12. **Lease-option Agreement** - For taxation purposes, a lease which contains an option to purchase prior to or at expiration of the term, is known as a lease-option agreement.

13. **Lessee** - An individual who rents an asset from a second party under a lease agreement.

14. **Lessor** - An individual who rents an asset to a second party under a lease agreement

15. **Median Rule Method** - One way or calculating the adjusted cost base of an asset owned before 1972. The adjusted cost base is considered to be the middle of three values, the original price, the 1971 value, and the sale price.

16. **Non-Capital Losses** - A loss incurred in a year of operating a business (e.g. - when business expenses, including capital cost allowance, are greater than the business income).

17. **Non-depreciable Assets** - Land is a non-depreciable asset.
It does not diminish in value over time as a result of use or obsolescence. It cannot be entered into the capital cost allowance schedule.

18. **Operating Lease** - A lease in which the lessor does not transfer substantially all the benefits and risks associated with ownership of property to the lessee. The lease payments on an operating lease are treated as a direct expense.

19. **Option to Purchase** - A right to purchase the leased asset prior to or at the end of the lease term. The option to purchase may be for a pre-determined amount or an amount to be determined at the date of option.

20. **Proceeds of Disposition** - Sale Price. It may be actual or in some cases deemed (assumed).

21. **Recaptured Capital Cost Allowance.** - When a declining balance capital cost allowance class is sold out or becomes less than zero dollars, the amount less than zero dollars is "recaptured" as taxable income.

22. **Residual Value** - The lessor's remaining investment in a leased asset at the expiration of the lease or at some point during the term of the lease. Residual values are usually expressed as a percentage of the original cost.

23. **Skip Payments** - The practice of scheduling lease payments to match periods of cash inflow. Where cash inflow is of a seasonal nature, payments may be scheduled during periods of income, while payment requirements are waived or "skipped" during the off-season.

24. **Stretch Term Lease** - A financial lease in which the option to purchase falls prior to the end of the term. The initial period up to the date of option is known as the "term to option" while the period following the option date is known as the stretch term.

25. **Tax-free Zone Method** - Another name for the "median rule" method.

26. **Terminal Loss** - When a capital cost allowance class under the declining balance method is sold out and an amount remains, this amount is deductible as a "terminal loss".

27. **Undepreciated Capital Cost** - The remaining "book" value of a depreciable asset (straight-line method) or a class of depreciable assets (declining balance method) at any given time.

28. **Valuation Day (V-day) Value** - The value of assets on December 31, 1971 (December 22,1971 for publicly traded shares). This is usually used as the adjusted cost base of assets owned before 1972.

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